

Publications

Book

- Leonid Barenboim and Michael Elkin. Distributed Graph Coloring. *Morgan & Claypool Synthesis Lectures on Distributed Computing*. Ed, Nancy Lynch, MIT. In preparation. (Expected publishing date: July 2013.)

Journal Publications

- Leonid Barenboim and Michael Elkin. Deterministic Distributed Vertex Coloring in Polylogarithmic Time. *Journal of ACM*, Vol. 58, No. 5, 23, 2011
- Leonid Barenboim and Michael Elkin. Distributed Deterministic Edge Coloring using Bounded Neighborhood Independence. *Distributed Computing Journal*, special issue of PODC'11.
- Leonid Barenboim and Michael Elkin. Sublogarithmic Distributed MIS Algorithm for Sparse Graphs using Nash-Williams Decomposition. *Distributed Computing Journal*, special issue of PODC'08.

Conference Papers

- Leonid Barenboim, Michael Elkin, Seth Pettie, and Johannes Schneider. The Locality of Distributed Symmetry Breaking. In proc. of the Symposium on Foundations of Computer Science, FOCS 2012, New Brunswick, NJ, USA.
- Leonid Barenboim, On the Locality of Some NP-Complete Problems. In proc. of the International Colloquium on Automata, Languages and Programming, ICALP 2012, Warwick, UK.
The paper received **ICALP 2012 Best Student Paper Award**.
- Leonid Barenboim, Shlomi Dolev and Rafail Ostrovsky. Deterministic and Energy-Optimal Wireless Synchronization. In proc. of the International Symposium on Distributed Computing, Disc 2011, Rome, Italy.
- Leonid Barenboim and Michael Elkin. Combinatorial Algorithms for Distributed Graph Coloring. In proc. of the International Symposium on Distributed Computing, Disc 2011, Rome, Italy.
- Leonid Barenboim and Michael Elkin. Distributed Deterministic Edge Coloring using Bounded Neighborhood Independence. In proc. of the Symposium on the Principles of Distributed Computing, PODC 2011, San Jose, California, USA.

The paper received **PODC 2011 Best Student Paper Award**.
- Leonid Barenboim and Michael Elkin. Deterministic Distributed Vertex Coloring in Polylogarithmic Time. In proc. of the Symposium on the Principles of Distributed Computing, PODC 2010, Zurich, Switzerland.

The paper received **PODC 2010 Best Paper Award**.
- Leonid Barenboim and Michael Elkin. Distributed $(\Delta + 1)$ -coloring in linear (in Δ) time. In proc. of the Symposium on Theory of Computing, STOC 2009, Bethesda, MD, USA.

- Leonid Barenboim and Michael Elkin. Sublogarithmic Distributed MIS Algorithm for Sparse Graphs using Nash-Williams Decomposition. In proc. of the Symposium on the Principles of Distributed Computing, PODC 2008, Toronto, Canada.

Other Publications

- Leonid Barenboim, A review of PODC 2010, SIGACT News, 41(4), December 2010.